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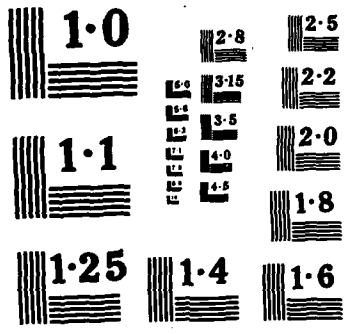

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1984 DOD VALUE ENGINEERING CONFERENCE REPORT

"VE - A TOOL THAT BENEFITS LINE MANAGEMENT"

PART VI

WORKSHOP D : VE TRAINING/ORIENTATION

1-2 NOVEMBER 1984

XEROX INTERNATIONAL CENTER FOR TRAINING AND MANAGEMENT DEVELOPMENT

LEESBURG, VIRGINIA

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20 ABSTRACT (Continue on reverse side if necessary and identify by block number)

This Conference Report summarizes and consolidates the proceedings from the 1984 DoD Value Engineering Conference held 1-2 November in Leesburg, VA. The findings and recommendations with supporting material from the five workshops are provided in addition to the complete plenary session presentations. An Executive Summary is presented in PART I.

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1984 DoD Value Engineering Conference Report

PART VI

Workshop D: VE Training/Orientation

FINAL REPORT

ON

WORKSHOP D - VE TRAINING/ORIENTATION

CHAIRMAN: DR. JOHN F. MC AREAVY, PH.D., ANETA

VICE CHAIRMAN: MR. HOWARD PRYOR, AFIT-SOSAL

TABLE OF CONTENTS

CHAPTER 1

INTRODUCTION

A. DOD VE Conference Objectives

The objectives of the DOD VE Conference, held at the Xerox International Center for Training and Management Development, Leesburg, Virginia, 1-2 November 1984, were twofold.

1. Identify impediments to the use of VE and suggest specific actions to ameliorate them.

2. Identify successful VE applications and specify how they might be expanded.

B. Workshop D - VE Training/Orientation Objectives

Based upon the above objectives for the DOD VE Conference, the following objectives were developed for Workshop D - VE Training/Orientation:

1. Determine the training/orientation needed in order to obtain total commitment for VE and to provide skills required to accomplish DOD's VE goals.

2. Determine the best methodology/approach(s), considering all the players involved (i.e., Government operations, contractors, VE specialists, other functional

specialists, and the total workforce).

3. Determine training effectiveness measures.

4. Develop recommendations to meet the DOD VE Conference objectives.

C. Workshop D - Agenda

The agenda that was followed during the conduct of Workshop D is shown on Appendix A. After an introduction and overview by the workshop chairman, Dr. J. F. McAreavy, four main speakers were used to summarize the need for training and its availability in Government. Four work groups were established to discuss workshop topics in detail, share experiences, and develop recommendations.

D. Workshop D - Attendees

A list of attendees who participated in Workshop D is shown on Appendix B. The attendees consisted of both Government and private industry personnel. Four DOD training activities were represented: Air Force Institute of Technology (AFIT), Army Logistic Management Center (ALMC), Army Management Engineering Training Activity (AMETA), and Defense Systems Management College (DSMC).

CHAPTER 2

METHODOLOGY

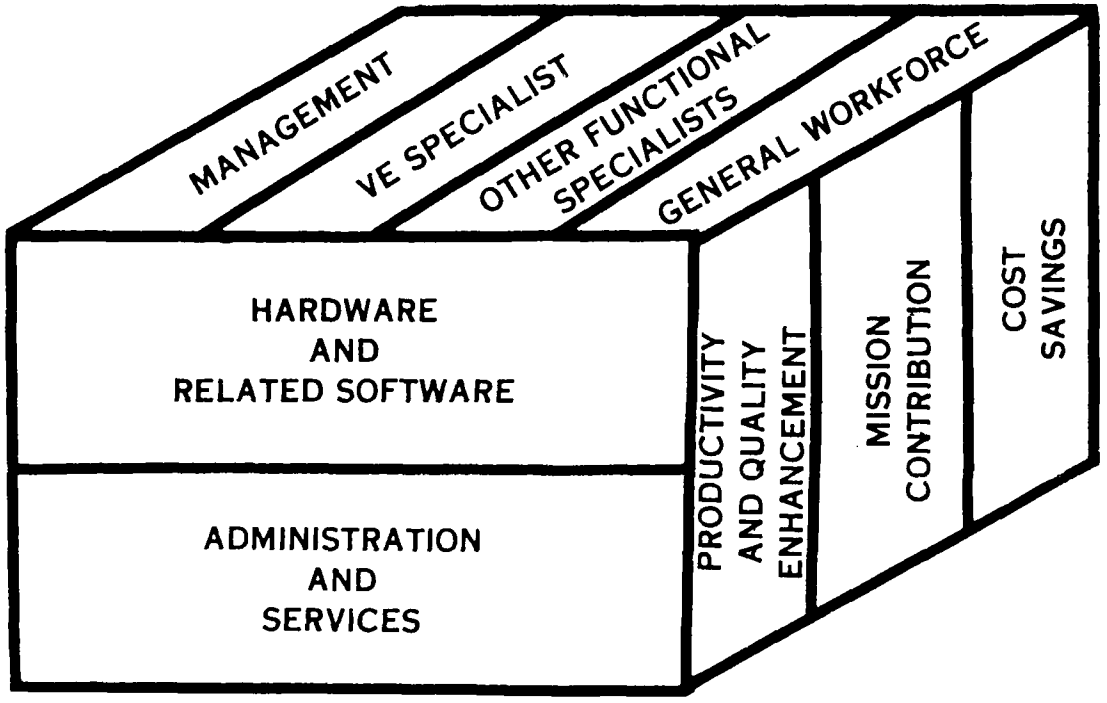
A. Introduction/Overview

The chairman outlined the objectives of Workshop D and highlighted the problem of obtaining a total VE Commitment using the illustration at Figure 1. He emphasized the need to consider Value Engineering from a software and administrative point of view as well as the traditional hardware analysis. In addition, Dr. McAreavy suggested that training is not the sole answer but must be integrated into a total system including appropriate penalties and rewards for management performance.

B. Main Speakers

As shown on Appendix A, the four speakers made their presentations relative to VE training and orientations. The key issues that evolved during the presentation are as follows:

DOD VALUE ENGINEERING TRAINING AND ORIENTATION FOR GOVERNMENT AND CONTRACTORS



TOTAL VE COMMITMENT

Figure 1

1. Mr. Thomas O'Connor, GAO

Mr. O'Connor recently reviewed the DOD's value engineering program and prepared the GAO Report of 27 September 1983. In summary, this report states that value engineering should be improved as part of the Defense Department's approach to reducing acquisition cost. Mr. O'Connor reiterated that the Secretary of Defense should take management action on the contractor component of the value engineering program by encouraging greater defense contractor and subcontractor participation by ensuring their awareness of, and confidence in, the DOD value engineering program through increased use of conferences and training opportunities.

2. Mr. Ted Tammearu, Honeywell

Mr. Tammearu is a highly successful industry VE manager who emphasized that training is often viewed as the cure for a sick VE program. While training is an important factor, it is not the only factor. Management attention must be maintained at a high level to assure that trained personnel continue to perform VE at their work site. The success of the VE program at Honeywell is primarily due to the support given by top management to the program. Whenever management is given an orientation on VE, the VE staff insures that they have a non-VE manager present their VE success story as a portion of the orientation.

3. Mr. Howard Pryor, AFIT

Mr. Pryor is the top DOD instructor and one of the key authorities in DOD on the contractual applications of VE. The Contractual Applications of Value Engineering (CAVE) course has a strong demand and AFIT is satisfying most of the demand shown on requirements survey. However, all too often they find out on the first day of class that those who signed up and need the training do not show up, or the wrong people are taking the course. Mr. Pryor emphasized that procurement personnel who process VECP's must have a good understanding of the procedures in order to expedite VECP actions.

4. William Shallman, Ph.D., AMETA

Dr. Shallman noted that since 1959 AMETA has trained over 15,000 students in the principles and applications of VE. In addition, AMETA has trained or supported Accredited Off-Campus Instructors in conducting the PAVE course (i.e., Principles and Applications of Value Engineering) for approximately 1600 students during FY 83 and FY 84. AMETA is currently developing a new VE course entitled, "Value Analysis for Administrative and Service Activities (VAASA)," aimed at personnel in non-hardware areas. The first course is scheduled to be conducted at AMETA during the period 28 January thru 1 February 1985. This course will provide the principles and techniques for identifying unnecessary functions and costs in administrative and service activities and

will be associated with management and industrial engineering programs throughout the DOD.

C. Work Group Session

After the speakers made their presentations, the attendees worked together in small groups addressing the topics contained on Appendix C. Each group leader made a presentation on Friday morning, 2 November 1984, to all of the workshop attendees on the group's conclusions and recommendations. All of the work groups' conclusions and recommendations were summarized and presented to the overall conference by Dr. McAreavy, chairman of the workshop.

THORNELL, Stephen

US Army ET&D Labs
Ft. Monmouth, NJ

WAMSER, Thomas A.

US Army Management Engineering
Training Activity
Rock Island, IL

IDERTON, YVONNE	Space Division/AFSC Los Angeles, CA
JENKINS, David L.	USAMC Intern Training Center Texarkana, TX
McAREAVY, John F.	US Army Management Engineering Training Activity Rock Island, IL
McILVAINE, Paul J.	Defense Systems Management College Ft. Belvoir, VA
NEMECEK, Larry	WSMC/QAES Vandenberg AFB, CA
O'CONNOR, Thomas (speaker only)	US GAO Washington, DC
PATE, Benny L.	Belvoir R&D Center Ft. Belvoir, VA
POWERS, William O.	San Antonio ALC/MMEA San Antonio, TX
PRYOR, Howard M.	AFIT/LSP Wright Patterson AFB, OH
PYLES, Charles	OOALC Hill AFB Ogden, UT
QUIDRY, Thomas L.	HQ, Defense Logistics Agency Alexandria, VA
REED, Donald E.	Westinghouse Electric Co. Baltimore, MD
SHALLMAN, William S.	US Army Management Engineering Training Activity Rock Island, IL
SHIMKUS, Daniel F.	US Army Natick R&D Center Natick, MA
STOKLEY, Alfred	PM Joint STARS Ft. Monmouth, NJ
STRINGER, Sue C.	Naval Air Rework Facility Jacksonville, FL

WORKSHOP D ATTENDEES

Attendee	Installation
ADKINS, Jack S.	Harry Diamond Labs Adelphi, MD
ANDERSON, N. Roger	HQ, AFLC/PTE Wright Patterson AFB, OH
BARLOW, Trisha	Westinghouse DEC Baltimore, MD
BRYAN, Virginia M.	Naval Air Rework Facility Cherry Point, NC
CHRISTENSEN, Walter	Naval Material Command Philadelphia, PA
CROCKETT, Thomas O.	US Army Logistics Management Center Fort Lee, VA
CSISAR, James G.	Analysis & Technology, Inc. North Stonington, CT
DEGENHARDT, Eugene A.	US Army Engineer District St. Louis, MO
DOMINCOS, Joseph	HQ, MAC/LGMA Scott AFB, IL
FEHIG, Jack	Raytheon Co. Wayland, MA
FLETCHER, James R.	US Armed Forces Command Ft. McPherson, GA
FOLEY, LTC Norman	Space Division/PD Los Angeles, CA
GARRISON, Don W.	US Army Management Engineering Training Activity Rock Island, IL
GIANBALVO, Philip E.	US Army Electronic Warfare Laboratory (ERADCOM) Fort Monmouth, NJ
HILLIKER, Allen	Naval Air Rework Facility San Diego, CA

APPENDIX B

WORKSHOP D - WORK GROUP ATTENDEES

Friday, 2 November 1984

0830-1000	Workshop D Convenes Continue Work Group Discussions	
1000-1130	Work Groups Report out to General Workshop: Provide Summary to Chairman	
1300-1415	General Conference Convened for Reports to Overall Conference	Work Group Chairpersons

All breaks and lunches will be in accordance with overall VE Conference agenda.

DOD VALUE ENGINEERING CONFERENCE
1-2 November 1984

WORKSHOP D
DOD VE TRAINING/ORIENTATION

CHAIRMAN: John F. McAreavy, Ph.D.
Director, USAMETA, Rock Island, Illinois

VICE CHAIRMAN: Mr. Howard Pryor
AFIT, SOSAL, Wright-Patterson Air Force Base, Ohio

AGENDA

Thursday, 1 November 1984

1300	Introduction Workshop Objectives	Dr. McAreavy
1305	Workshop Participants Self-Introduction	Dr. McAreavy
1320	DOD Value Engineering Training/Orientation "A GAO Point of View"	Mr. Thomas O'Connor US General Accounting Office, Washington, DC
1340	VE Training and Orientation at Honeywell, Inc.	Mr. Ted Tammearu VE Manager Defense Systems Div. Honeywell, Inc.
1400	DOD Training/Orientation in the Application of VE Contractual Provisions	Mr. Howard Pryor
1420	DOD Training/Orientation VE Methodology Industrial, Administrative, and Service Activities	Dr. William Shallman USAMETA
1440	Work Groups Established and Assignments Provided	Dr. McAreavy
1715	Work Groups Report Out on Additional Action Topics	
1730	Adjourn	

APPENDIX A

AGENDA FOR WORKSHOP D - VE TRAINING/ORIENTATION

3. Government personnel should be given a share of the savings resulting from their participation on successful VEP's.

4. The use of VE during the life cycle should be incorporated into the draft MIL-STD 499B, "Engineering Management."

5. DOD should expedite the publication of the DOD VE Handbook.

4. DOD should develop a video tape to focus on a total commitment for VE from DOD top management. In addition, new films or video tapes showing the most current principles and guidance for use in the PAVE and CAVE courses should be developed.

5. The VE staff should continuously indoctrinate targeted personnel on internal procedures to be followed in processing VECP's and VEP's.

6. Develop an approach to measure VE training performance for application by VE program managers at the installation/activity level.

C. Other Recommendations

1. Emphasize public relations for VE. Target audiences for this effort are Congress, all DOD activities, communications media, the general public, and academia. This publicity should reflect the total commitment to VE within DOD and the successes being achieved.

2. Management should be evaluated in terms of achieving VE goals and objectives during their performance evaluation.

CHAPTER 4

RECOMMENDATIONS

A. Introduction

To achieve the objectives of the DOD VE Conference and Workshop D, as shown in Chapter 1, and based upon the conclusions arrived at, as shown in Chapter 3, the following recommendations are made.

B. Recommendations Directly Related to Training

1. Implement a training program patterned after that summarized in Figure 2. Target those organizations currently perceived as unresponsive to contractor efforts for priority application of this training.

2. The DAVE course should be made mandatory in the career development plan for engineers, scientists, and other technical specialists.

3. The CAVE course should be made mandatory in the career development plan for Value Engineering Program Managers (VEPM's), Procuring Contracting Officers (PCO's), and Administrative Contracting Officers (ACO's).

C. Summary of Other Conclusions

1. VE is currently getting high level interest, but it also must be maintained in the future. Overt demonstrations for VE by top management and publicity of VE success stories to top levels (i.e, Congress, DOD management) are useful methods to maintain this interest.

2. Total commitment to VE requires a top level concensus to Value (analagous to the Japanese commitment to quality) and a system of incentives--rewards for contributors as well as penalties for non-performance.

3. While contractor VE program success is dependent on their own total organizational support, this in-house support is contingent upon perceived Government support for VE through the actions of the Government (e.g. expeditious processing of VECP's).

4. There is a need for VE to be an element in performance or career evaluation for management, especially Government and contractor program/project managers.

5. To insure that VE will be applied early in the life cycle of a program, the application of VE must be covered in various DOD guidance documentation (e.g., MIL STD 499B).

4. Neither the PAVE nor the CAVE course is mandatory under current career development plans. Organizations with successful VE programs train their personnel using these courses.

5. Training performance must be measured. Among the factors that may be used:

a. Follow-up after a period of time to determine if students trained are being assigned tasks which require they use VE skills they obtained in the training course.

b. A performance factor that relates dollars saved by efforts of personnel trained to cost of the training.

6. There is a need for new films or video tapes on VE. The major ones that are currently available are approximately 20 years old. The new AV products should:

- differenciate between ECP, VEP and VECP
- include both hardware, software, and administrative applications

b. A slightly expanded version of the above must be provided to the next level of management. Additional information provided to this level should include how the VE program fits into their organization and the VE program strategy to meet its accomplishment goals.

c. Middle management and first-line supervisors require a 20-hour workshop in VE to show how VE can be applied across the board with a strong results-oriented approach.

d. VE coordinators and technical specialists should attend the 40-hour PAVE workshop. Personnel responsible for implementing VE in the contractual environment should attend the CAVE course.

e. The general workforce should be oriented on VE through short briefings and a "MEDIA BLITZ" program with emphasis on results and the need for individual contributions.

2. There is a need to target specific VE training for those Government offices which are currently perceived as unresponsive to contractor VE efforts.

3. There is a need for training on internal procedures for processing VEP's and VECP's, particularly contracting staffs of industry and DOD.

CHAPTER 3

CONCLUSIONS

A. Introduction

The conclusions arrived at by this workshop are based upon the knowledge and experience of the attendees.

B. Summary of Conclusions Directly Related to Training

1. To obtain total organization commitment to VE, everyone in the organization must be indoctrinated in VE, as shown in Figure 2.

a. Top management must be provided results-oriented orientations in VE. This orientation of 2 to 4 hours must explain what VE is, what return they can expect from their investment in VE, an overview of how the VE program works in DOD and its resource requirements. A significant element of this orientation should be a short case history on a successful VE project presented by a line manager or project manager responsible for implementation.

APPENDIX C

WORKSHOP D - WORK GROUP ACTION TOPICS

DOD VE TRAINING/ORIENTATION

WORKSHOP D

CHAIRMAN: John F. McAreavy, Ph.D., Director, AMETA

VICE CHAIRMAN: Mr. Howard Pryor, SOSAL, AFIT

WORK GROUP ACTION TOPICS:

Each Work Group will address each of the major action topics. Any additional topics identified by each Work Group will be reported out at 1715, 1 November.

- NEED DETERMINATION - CURRENT AND FUTURE
  - Total Organization Commitment (Government and Contractor
  - Management
  - VE Specialists
  - The General Workforce
  - The Non-Hardware Arena
  - Other
- SPECIFIC REQUIREMENTS
  - Nature and Kinds of Training/Orientation
  - Estimated Number of Trainees
  - Other
- METHODOLOGY
  - Mandatory Core Courses
  - Video Tape Opportunities
  - VE Modules in Related Training
  - Innovative Training/Orientation Techniques
  - Other
- MEASURING EFFECTIVENESS AND RESULTS
  - Savings
  - Quality
  - Other
- ADDITIONAL ACTION TOPICS
- RECOMMENDATIONS - REPORT OUT BY GROUP - 1000, 2 November

BIOGRAPHICAL SKETCH

JOHN F. McAREAVY, Ph.D.

Director
U.S. Army Management Engineering Training Activity
Rock Island, Illinois 61299-7040
(309) 794-4041

Dr. McAreavy received his BS Degree (Mathematics) in 1951 and his MA Degree (Mathematics) in 1955 from the University of Iowa. He received his Ph.D. in Psychology from the University of Iowa in 1969.

Dr. McAreavy has been the Director of the U.S. Army Management Engineering Training Activity for the past four years. In this capacity he leads a professional staff of engineers, management specialists, and computer specialists that develop and conduct training courses, provide consulting services and perform research in the areas of systems engineering, value engineering, and management engineering throughout the Department of Defense.

Prior to being named Director, Dr. McAreavy has served the Army as a senior management consultant and as Head of two Departments at AMETA: Applied Mathematics and Statistics, and Public Administration. During these assignments, he designed and developed an extensive Quality Assurance and Reliability Engineering curricula, established courses in Structured Systems Analysis and Management Engineering. He also conducted a number of significant management consulting projects, for example, the Management Audit of PACCAR, FMC and Chrysler in 1972, and the Assessment of the Army Materiel Command Project Management System in 1970.

He is a member of the Academy of Management and the American Psychological Association. He is the recipient of a number of awards; most notable, the Secretary of Army Materiel Acquisition Award in 1974.

BIO SKETCH

Howard M. Pryor is a Professor of Contracting Management, School of Systems and Logistics, AFIT.

Mr. Pryor flew P-38's during World War II and retired from the USAF as a Lieutenant Colonel.

Mr. Pryor is a past president of Chapter 52, S.W. Ohio, Society of American Value Engineers (SAVE). He is a senior member of SAVE; a senior member of the A.I.I.E.

In the past 22 years he has conducted over 150 VE training sessions for Government personnel.

He serves as a consultant to the Federal Government and to aerospace industry in those areas concerned with contractual aspects of VE.

Mr. Pryor is currently the course director for Contract Administration for Engineers (PPM 307) and for Contractual Aspects of Value Engineering (PPM 306).

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